

rotation, they are held down by the springs 42. Other clamping mechanisms may be used to hold down the specimen in a fixed orientation such as meshes or a membrane overlay 40A or a permeable or perforated bag (FIG. 4A). Fiducial marks, which can be visualized or imaged, may be provided in the case of meshes or membranes. The use of a membrane or mesh may be preferable since the specimen 34 may be moved under the membrane. The membrane specimen tray or cassette is the subject matter of a companion application filed concurrently herewith in the name of Bill Fox, et al., U.S. Provisional Application No. 60/120,534, filed February 17, 1999, now U.S. Patent No. 6,411,434, issued June 25, 2002, from U.S. Patent Application No. 09/502,252, filed February 17, 2000. Further information as to the use of the markings on the clamping mechanism (the mesh or membrane) to mark locations of the image tissue is contained in a co-pending International Patent Application No. PCT/US99/21116, and U.S. Patent Application, filed in the names of Roger J. Greenwald and James M. Zavislan, serial number 60/100,176, filed September 14, 1998, now pending as U.S. Patent Application No. 09/786,902, filed March 9, 2001, having priority to U.S. Provisional Application No. 60/100,176 through International Patent Application No. PCT/US99/21116. The purpose of the clamps is to keep the tissue stationary during examination and also provide a means to lightly compress the tissue surface against the window. Alternatively, the clamps may provide tension to pull the tissue surface taut. Holding the tissue with either compression normal to the window or in tension parallel to the window (or both) tends to reduce the surface texture, or corrugation, peak to valley depth.

In the Claims:

Please amend Claims 9, 21, 30, and 31 as follows:

9. (twice amended) An apparatus for imaging excised tissue having a refractive index comprising:

a tray upon which excised tissue is disposed;
means for clamping said excised tissue upon said tray in a fixed orientation; and
optics directed towards the excised tissue through a portion of said tray in which said tray contains an immersion media having a refractive index matching the refractive index of said excised tissue.